



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

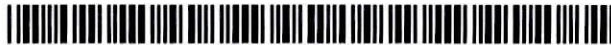
D135-1027-153
Job Sheet 169678



Part No: D135-1027-153

Job Qty: 1 ea

Part Name: Mid Height Fwd Crosstube



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/18/17

Job Tracking No:

Due Date: 1/11/18

Created By: Diane Baker

Type: Stock

Description:

Ship Via:

DAS 10 9:59 18.04.27
Rev B

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Purchasing	1 pcs	1/11/18	1/11/18	0.00	0.00	Purchasing		<i>AT 18/01/20</i>
120	Packaging	1 pcs	1/11/18	1/11/18	0.00	0.00	Packaging2		<i>AT 18/04/20</i>
130	QC	1 pcs	1/11/18	1/11/18	0.00	0.00	QC15		<i>18.04.20</i>
140	Outsource	1 pcs	1/11/18	1/11/18	0.00	0.00	Outsource2		<i>AT 18/04/25</i>
150	Packaging	1 pcs	1/11/18	1/11/18	0.00	0.00	Packaging2		<i>AT 19/04/25</i>
160	QC	1 pcs	1/11/18	1/11/18	0.00	0.00	QC5		<i>38</i>
170	Packaging	1 pcs	1/11/18	1/11/18	0.00	0.00	Packaging3-1	<i>LG050</i>	<i>A8 APR 7 6 2019</i>
180	QC21-FG	1 Ea	1/11/18	1/11/18	0.00	0.00	QC21		

Part Op 110 - Issue P/O to Tube Caron: *1608279* Manufacture D135-1027-153 as per dwg (Bend, Remove excess
Descriptions: material after bending, Drill) **Ship extrusion D6025-120** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE
TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND
FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required
120 - Ensure material release note is attached
140 - ISSUE P/O: *039676* C OF C IS REQUIRED
150 - C OF C IS REQUIRED
DEC 19 2017 *rich*

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
110-Purchasing	D135-1027-153P	1	0	0	0 <i>Sub 026</i>
	D6025-120	1	17	0	0 <i>F 157904</i>

Part Specifications

Specifications could not be found.

Plex 12/18/17 2:53 PM dart.baker.diane



Container No: **S063179**



Mid Height Fwd Crosstube

PART NO: **D135-1027-153**

Serial No/Batch: **S063179**

Revision:

Operation:

Change No:

Packaging

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA

TEL.: 1 613 632-5200

Email: sales@dartaero.com

www.dartaerospace.com

Mfg Date: 04/20/18

Job No: 169678

DART AEROSPACE LTD		Work Order:	
Description: MID HEIGHT FWD CROSSTUBE		Part Number:	D135-1027-153
Inspection Dwg: D135-1027-153 Rev: B		Page 1 of 2	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.550" TYP	+/-0.005"	3.550"				
13.63" TYP	+/-0.030"	13.675"				
2.14" REF	+/-0.030"	—				
2.75" TYP	+/-0.030"	2.760"				
Ø.194" THUR 2PL	+0.006" -0.001"	.192"				
17.0" 2PL	+/-0.100"	17.00"				
Ø.313" THUR 2PL	+0.006" -0.001"	.312"				
Ø.472" THUR 4PL	+0.006" -0.001"	.472"				

WALL THICKNESS MEASUREMENTS

LOCATION FROM CL	DWG DIM	R1	R2	R3	R4				
CL	0.134"	.132	.129	.129	.134				
21"	0.134"	.132	.127	.127	.134				
21"	0.134"	.132	.123	.127	.136				
CENTER OF BEND	0.134"	.133	.115	.127	.143				
CENTER OF BEND	0.134"	.132	.117	.127	.146				

OUTSIDE DIAMETER MEASUREMENTS

Location	DWG DIM	M1	M2				
CL	3.543"	3.542	3.546				
CENTER OF BEND	3.543"	3.512	3.538				
CENTER OF BEND	3.543"	3.514	3.536				

Crushing

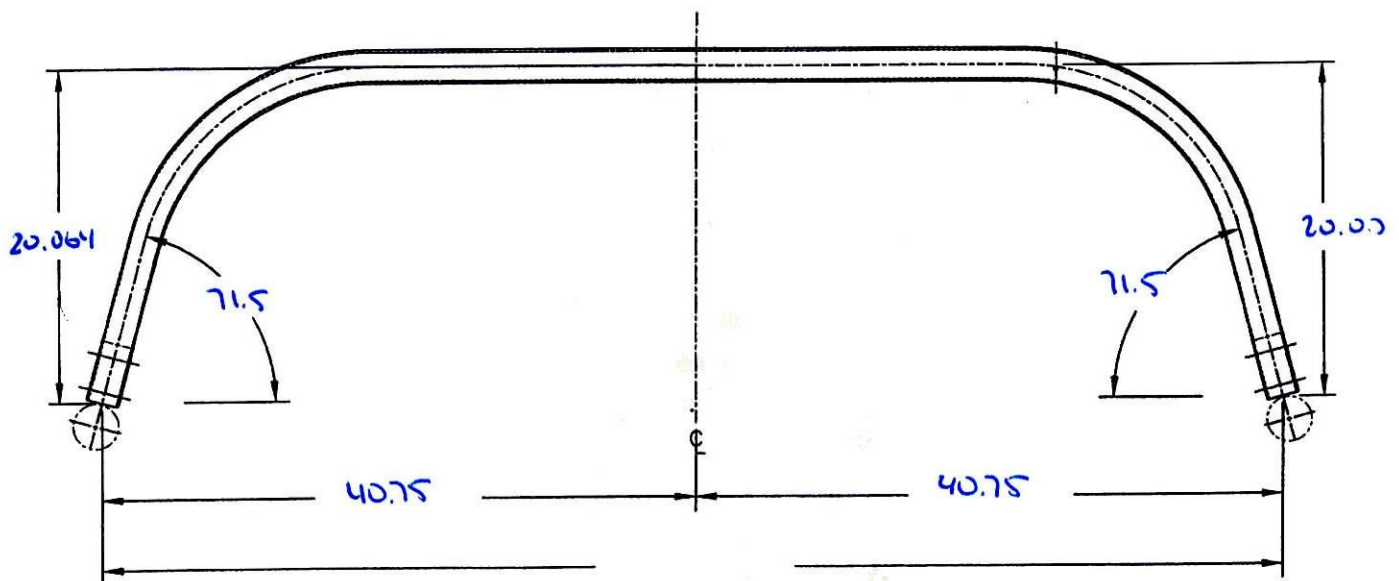
	Side A	Side B
MAX 2%	.20%	.23%

TWIST

	SIDE A	SIDE B
MAX 0.25"		

DART AEROSPACE LTD	Work Order:	
Description: MID HEIGHT FWD CROSSTUBE	Part Number:	D135-1027-153
Inspection Dwg: D135-1027-153 Rev: B		Page 2 of 2

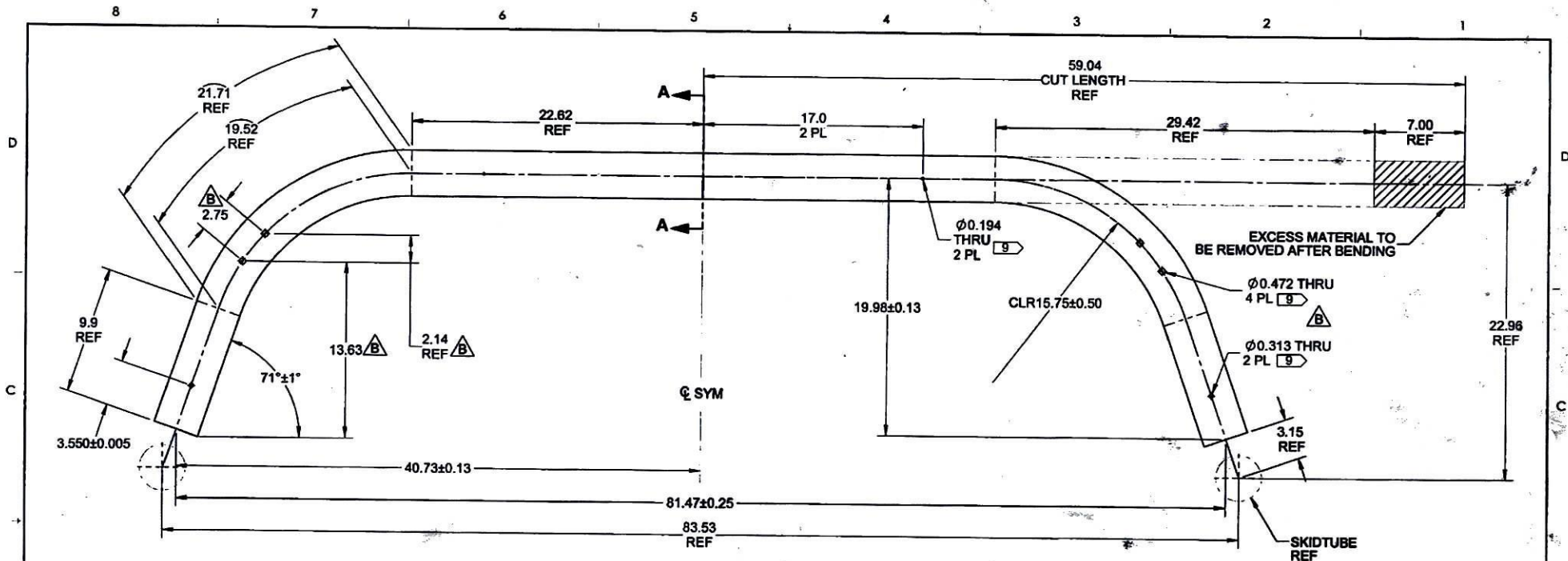
Required Dimension	Min	Max
Height	19.85"	20.11"
1/2 Span	40.60"	40.86"
Angle	70°	72°
Total Span	81.20"	81.72"
Bending Passes		
Crushing	0%	2%



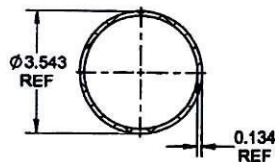
Measured by:		Checked by:		QC Inspector:	
Date:		Date:		Date:	

Engineering Approval: (If necessary)		Date:	
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Rev	Date	Change	Revised by	Approved
A	18/01/16	New Issue	ED	



D135-1027-153 MID HEIGHT FWD CROSSTUBE



**SECTION A-A
SCALE 2X**

RELEASED
2017-08-01
EQU17-607 CM

NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6025-120
STRAIGHT LENGTH = 118.08±0.06 (BEFORE BENDING / TRIMMING)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 15.14 lbs
- 8) MAX TWIST: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE SHALL BE NO LARGER THAN 0.25.
- 9) HOLES TO BE ALIGNED WITHIN 0.005 IN RELATION TO THE HOLE ON OPPOSITE SIDE OF CROSSTUBE.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038. TO BE PERFORMED AFTER FINAL POST-BEND GRINDING. ANY ADDITIONAL GRINDING REQUIRES ANOTHER LPI INSPECTION.
- 12) MAXIMUM TUBE FLATTENING DUE TO BENDING IS 2% BASED ON OD.

B	QTY (4) Ø0.472 WAS Ø0.313, 2.75 WAS 1.57, 13.63 WAS 15.48. REASON: DESIGN UPDATE	ML	17.05.25
A	NEW ISSUE	ML	17.01.31
REV.	DESCRIPTION	BY	DATE
DESIGN	ML		
DRAWN	ML		
CHECKED	NO		
MFG. APPR.	DD		
APPROVED	WM		
DE APPR.	CP		
DATE	17.05.25		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D135-1027-153	REV. B
TITLE MID HEIGHT FWD XTUBE	SHEET 1 OF 1
SCALE NTS	
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APPROVED



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO038679**

Supplier: TUB001-VC
Tube Caron Inc.
99 Louis-Joseph-Doucet Street
Lanoraie
QC
JOK 1EO Canada
Phone: 450-887-2766
Fax: 450-887-2897

PO No: PO038679
PO Date: 12/18/17
Due Date: 1/12/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$300.00/pcs	\$0.00
Line Item Note job# 169662 - Priority 1										
				Received	4/13/18	2 pcs	2 pcs	0 pcs	\$300.00/pcs	\$0.00
Sub Total:						3	3	0		\$0.00
2	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note job# 169670 - Priority 1										
3	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note job# 169671 - Priority 1										
4	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note job# 169672 - Priority 1										
5	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Received	3/15/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note job# 169663 - Priority 2										
				Received	4/13/18	2 pcs	2 pcs	0 pcs	\$600.00/pcs	\$0.00
Sub Total:						3	3	0		\$0.00
6	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Received	3/15/18	1 pcs	1 pcs	0 pcs	\$300.00/pcs	\$0.00
Line Item Note job# 169675 - Priority 2										

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
7	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Received	3/15/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note Job# 169673 - Priority 2										
8	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Received	3/15/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note Job# 169674 - Priority 2										
9	D135-1027-153P		Mid Height Fwd Crosstube As Per Dwg # D135-1027-153 Rev. B	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$300.00/pcs	\$0.00
Line Item Note Job# 169676 - Priority 1										
10	D135-1027-153P		Mid Height Fwd Crosstube As Per Dwg # D135-1027-153 Rev. B	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note Job# 169664 - Priority 1										
11	D135-1027-153P		Mid Height Fwd Crosstube As Per Dwg # D135-1027-153 Rev. B	Received	3/15/18	1 pcs	1 pcs	0 pcs	\$600.00/pcs	\$0.00
Line Item Note Job# 169678 - Priority 1										
12	D135-1027-153P		Mid Height Fwd Crosstube As Per Dwg # D135-1027-153 Rev. B wo 169677	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$300.00/pcs	\$0.00
Line Item Note Priority 1										
				Received	3/15/18	1 pcs	1 pcs	0 pcs	\$300.00/pcs	\$0.00
Sub Total:						2	2	0		\$0.00
13	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Received	1/12/18	1 pcs	1 pcs	0 pcs	\$300.00/pcs	\$0.00
Grand Total:										\$0.00
Order Notes										
Procurement Quality Clauses A005 right of entry A012 chemical and physical test report A016 personnel qualification A017 raw material identification (as applicable) A026 certification of material conformance A041 quality management system A042 dart notification by supplier A043 retention of quality documents A048 counterfeit parts avoidance, detection, mitigation and disposition program A049 supplier awareness Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.										

Plex 4/20/18 8:41 AM dart.lavoie.chantal



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039676**

Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

PO No: PO039676
PO Date: 4/23/18
Due Date:
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	169678	D135-1027-153	Mid Height Fwd Crosstube ISSUE P/O: _____ C OF C IS REQUIRED	Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
	169677			Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
Sub Total:						2	0	2		\$334.00
2	169671	D135-1027-253	Mid Height Aft Crosstube ISSUE P/O: _____ C OF C IS REQUIRED	Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
	169670			Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
	176211			Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
Sub Total:						3	0	3		\$501.00

Grand Total: **\$835.00**

Order Notes

rev'd AT 18/4/18

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.



skyservice Work Order Traveler

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO35758	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO39676
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT LIQUID PENETRANT INSPECTION ON FIVE MID HEIGHT AFT CROSSTUBES P/N : D135-1027-253 AS PER PO : PO39676

- 1 - JOB SHEET : 176211 2 - JOB SHEET : 169678
3 - JOB SHEET : 169677 4 - JOB SHEET : 169671
5 - JOB SHEET : 169670

Action Taken:	Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT AS PER ASTM E-1417M-13 NO CRACK FOUND PEN. ZL-56, MPO13600, UV M-20141, CLEANER SKC-S MPO13923 , DEV. MPO11715	APR 23 2018	LM DOT-APP 278 53-89

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
Name: LUIGI MARCHETTI	DOT-APP 278 53-89	APR 23 2018